

SECTION 08 12 16 - ALUMINUM FRAMES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes interior aluminum frames for doors, head tracks, and glazing framing installed in gypsum board partitions.
- B. Related Sections:
 - 1. Section 08 14 00 " Wood Doors" for wood doors installed in interior aluminum frames.
 - 2. Section 08 71 11 "Door Hardware (Scheduled by Describing Products)."
 - 3. Division 26 and 28 Sections for electrical connections including conduit and wiring for door controls and operators and security.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
- B. Shop Drawings: Include the following:
 - 1. Frame details for each frame type, including dimensioned profiles and metal thicknesses.
 - 2. Locations of reinforcements and preparations for hardware.
 - 3. Details of each different wall-opening condition.
 - 4. Details of anchorages, joints, field splices, and connections.
 - 5. Details of accessories.
 - 6. Details of moldings, removable stops, and glazing.
 - 7. Details of conduits and preparations for power, signal, and control systems.
- C. Samples for Initial Selection: For units with factory-applied finishes.
 - 1. Include similar Samples of seals, gaskets, and accessories involving color selection.
- D. Samples for Verification: For interior aluminum frames, prepared on Samples of size indicated below:
 - 1. Framing Member: 12 inches (300 mm) long.
 - 2. Corner Fabrication: 12-by-12-inch- (300-by-300-mm-) long, full-size window corner, including full-size sections of extrusions with factory-applied color finish.
- E. Schedule: For interior aluminum frames. Use same designations indicated on Drawings. Coordinate with door hardware schedule and glazing.

1.4 INFORMATIONAL SUBMITTALS

- A. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for each type of interior aluminum frame.

1.5 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For interior aluminum frames to include in maintenance manuals.

1.6 QUALITY ASSURANCE

- A. Source Limitations: Obtain interior aluminum frames from single source from single manufacturer.
- B. Fire-Rated Assemblies: Assemblies complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 252 or UL 10C.
- C. Smoke- and Draft-Control Assemblies: Where indicated, provide assemblies tested according to UL 1784 and installed in compliance with NFPA 105.
 - 1. Air Leakage Rate: Maximum air leakage of 0.3 cfm/sq. ft. (3 cu. m per minute/sq. m) at the tested pressure differential of 0.3-inch wg (75 Pa) of water.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver interior aluminum frames palletized, wrapped, or crated to provide protection during transit and Project-site storage. Do not use nonvented plastic. Store interior aluminum frames under cover at Project site.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis-of-Design Product: AlumaPro Interior Frame Systems, Inc. configurations as shown on the Drawings or equivalent product by one of the following:
 - 1. Frameworks Manufacturing.
 - 2. Versatrac.

2.2 COMPONENTS

- A. Aluminum Framing: ASTM B 221 (ASTM B 221M), Alloy 6063-T5 or alloy and temper required to suit structural and finish requirements, not less than 0.062 inch (1.6 mm) thick.
- B. Door Frames: Extruded aluminum, reinforced for hinges, strikes, and closers.
 - 1. 90-Minute Fire-Protection Rating: Fabricate aluminum frame assemblies with a cold-formed, primed, interior steel liner.
- C. Glazing Frames: Extruded aluminum, for glazing thickness indicated.
- D. Ceiling Tracks: Extruded aluminum.

- E. Trim: Extruded aluminum, not less than 0.062 inch (1.6 mm) thick, with removable snap-in glazing stops and door stops without exposed fasteners.
 - 1. Trim Style: As indicated on the Drawings.

2.3 ACCESSORIES

- A. Fasteners: Aluminum, nonmagnetic, stainless-steel or other noncorrosive metal fasteners compatible with frames, stops, panels, reinforcement plates, hardware, anchors, and other items being fastened.
- B. Door Silencers: Manufacturer's standard continuous mohair, wool pile, or vinyl seals; gray **color**.
- C. Smoke Seals: Intumescent strip or fire-rated gaskets; gray color.
- D. Glazing Gaskets: Manufacturer's standard extruded or molded plastic, to accommodate glazing thickness indicated; gray color.
- E. Glazing: Comply with requirements in Section 08 81 00 "Glass and Glazing."
- F. Hardware: Comply with requirements in Section 08 71 11 "Door Hardware (Scheduled by Describing Products)."

2.4 FABRICATION

- A. Provide concealed corner reinforcements and alignment clips for accurately fitted hairline joints at butted or mitered connections.
- B. Factory prepare interior aluminum frames to receive templated mortised hardware; include cutouts, reinforcements, mortising, drilling, and tapping, according to the Door Hardware Schedule and templates furnished as specified in Section 08 71 11 "Door Hardware (Scheduled by Describing Products)."
 - 1. Locate hardware as required by fire-rated label for assembly.
- C. Fabricate frames for glazing with removable stops to allow glazing replacement without dismantling frame.
 - 1. Locate removable stops on the inside of spaces accessed by keyed doors.
- D. Fabricate components to allow secure installation without exposed fasteners.

2.5 GENERAL FINISH REQUIREMENTS

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.6 ALUMINUM FINISHES

- A. Clear Anodic Finish: AAMA 611, AA-M12C22A31, Class II, 0.010 mm or thicker.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine walls, floors, and ceilings, with Installer present, for conditions affecting performance of the Work.
- B. Verify that wall thickness does not exceed standard tolerances allowed by throat size indicated.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. General: Install interior aluminum frames plumb, rigid, properly aligned, and securely fastened in place; comply with manufacturer's written instructions.
- B. Set frames accurately in position and plumbed, aligned, and securely anchored to substrates.
 - 1. At fire-protection-rated openings, install interior aluminum frames according to NFPA 80.
- C. Install frame components in the longest possible lengths; components up to 96 inches (2450 mm) long must be one piece.
 - 1. Fasten to suspended ceiling grid on maximum 48-inch (1220-mm) centers, using sheet metal screws or other fasteners approved by frame manufacturer.
 - 2. Use concealed installation clips to produce tightly fitted and aligned splices and connections.
 - 3. Secure clips to extruded main-frame components and not to snap-in or trim members.
 - 4. Do not leave screws or other fasteners exposed to view when installation is complete.

3.3 CLEANING

- A. Clean exposed frame surfaces promptly after installation, using cleaning methods recommended by frame manufacturer and according to AAMA 609 & 610.
- B. Touch up marred frame surfaces so touchup is not visible from a distance of 48 inches (1220 mm)]. Remove and replace frames with damaged finish that cannot be satisfactorily repaired.

END OF SECTION 08 12 16